



BLUE ROCK
ENVIRONMENTAL, INC.

FILE COPY

Mr. Robert Stone
Hazardous Materials Specialist
Humboldt County Health Department
Division of Environmental Health
100 H Street, Suite 100
Eureka, California 95501

February 13, 2006

**Re: Soil Management Contingency Plan for Future Subsurface Work
in Areas of Possible Petroleum Contaminated Soils**
Indianola Market
7769 Myrtle Avenue
Eureka, CA
Project No. NC-18
LOP # 12690

Dear Mr. Stone,

This report presents a Soil Management Contingency Plan for Future Subsurface Work in Areas of Possible Petroleum Contaminated Soils for the property located at 7769 Myrtle Ave, Eureka, Humboldt County, California (site) (Figure 1). This report was prepared for Mrs. Beverly Alto and Mr. Jerry Avila by Blue Rock Environmental, Inc. (Blue Rock) and was requested by the Humboldt County Division of Environmental Health (HCDEH) in a January 10, 2006 correspondence.

Introduction

This *Soil Management Contingency Plan For Future Subsurface Work* has been prepared by Blue Rock for Mrs. Beverly Alto and Mr. Jerry Avila (responsible parties) in the event that potentially contaminated soil may be exposed in the area surrounding the former underground storage tank during future subsurface work. This *Contingency Plan* addresses potential health and safety concerns and provides information for site workers performing excavation work, the public, as well as protection of the environment.

This *Contingency Plan* should be made part of any Illness and Injury Prevention documentation associated with the property. This *Contingency Plan* is in addition to all other applicable plans and does not negate or supersede those plans. In areas of conflict, the more stringent constraint shall apply.

Background

Site Description

The subject site is located near the northern boundary of the City of Eureka in Humboldt County approximately 800 feet north of the intersection of Indianola Cutoff and Myrtle Avenue in a combined commercial/ residential area of Eureka at approximately 25 feet above mean sea level (Figure 1). The site is located in the southern portion of a 5-acre parcel of land containing two residences, the Indianola Market, and The Alto Brothers Trucking equipment maintenance/ storage yard and office.

Site History

The Indianola Market contained two 550-gallon capacity gasoline underground storage tanks (USTs) and one 550-gallon capacity diesel UST (Figure 2). The UST system, consisting of one 550-gallon gasoline and one 550-gallon diesel UST was constructed in 1953. At some time during the 1960s, the diesel UST was abandoned in-place and an additional 550-gallon gasoline UST was installed. The UST system was operated until September 1998, when the three USTs were closed by removal. The UST system was replaced by a single 1,000-gallon capacity aboveground gasoline storage tank, which is currently located on a concrete pad directly above the former UST excavation.

In September 1998, Christens NCI, Inc. (NCI), of Eureka, California, decommissioned and removed three USTs from the site along with associated piping, dispensers, and the dispenser island. This work was observed by the HCDEH and at the direction of the HCDEH inspector, approximately 75 cubic yards of obviously impacted soil was excavated and stockpiled at the site pending disposal. During UST removal activities, petroleum hydrocarbon stained soils were observed and groundwater entering the excavation exhibited a sheen accompanied by hydrocarbon odors. This confirmed that an unauthorized release of petroleum had occurred. On September 29, 1998, Mr. Jerry Avila, operator of the UST system, filed an unauthorized release report at that time. After completion of UST removal and soil excavation operations, NCI personnel collected confirmation soil and groundwater samples from the excavation at locations specified by the HCDEH. Results of soil and groundwater sampling confirmed that an unauthorized release of petroleum had occurred.

Site Investigation and Corrective Action History

On October 1, 2001, Clearwater Group (Clearwater) supervised Fisch Environmental of Valley Springs, California drill five direct push borings to preliminarily investigate the onsite extent of soil and groundwater contamination resulting from the confirmed release from the former UST system. Results for this investigation and the locations of the proposed monitoring wells were presented in Clearwater's *Preliminary Subsurface Investigation Report* dated October 22, 2001. In a letter dated October 26, 2001, the HCDEH concurred with Clearwater recommendations for monitoring well locations.

On November 7, 2001, Clearwater supervised Mitchell Drilling Environmental (MDE) in installing three monitoring wells: MW-1, MW-2 and MW-3 (Figure 2). These monitoring wells were placed in locations to assess the sorbed and dissolved-phase hydrocarbon contamination associated with the UST release. Results of this investigation are presented in Clearwater's *Monitoring Well Installation and Fourth Quarter 2001 Groundwater Monitoring Report* dated December 13, 2001.

On October 10, 2002, Clearwater supervised MDE in drilling two monitoring wells: MW-4 and MW-5 (Figure 2). These monitoring wells were placed in locations to further assess the residual sorbed and dissolved-phase gasoline and diesel range hydrocarbon contamination associated with the UST release. Data collected during this phase of investigation are presented in Clearwater's *Monitoring Well Installation and Fourth Quarter 2002 Groundwater Monitoring Report / Sensitive Receptor Survey* dated November 18, 2002.

On June 10, 2003, Clearwater supervised MDE in drilling four soil borings: B-6 to B-9 (Figure 2). These borings were placed in locations to further assess the residual sorbed and dissolved-phase gasoline and diesel range hydrocarbon contamination associated with the UST release. Data collected during this phase of investigation are presented in Clearwater's *Additional Investigation Report* dated July 8, 2003.

Per HCDEH request in a letter dated July 11, 2003, Clearwater prepared and submitted a *Corrective Action Plan* (CAP) dated February 18, 2004. The HCDEH responded to the CAP submitted by Clearwater in a letter dated April 23, 2004 requesting corrections to the existing CAP and a response to questions contained in that letter. In May 2004, Blue Rock was retained by Mr. and Mrs. Alto to continue site work. Blue Rock subsequently submitted a brief letter report dated June 15, 2004 in response to HCDEH requests. Groundwater monitoring continued.

Existing Petroleum Hydrocarbon Contamination

Areas where shallow soil (i.e. <3 meters bgs) petroleum hydrocarbon contamination remains beneath the surface are located around the former UST (Figure 3). Maximum known remaining contaminant levels, based on past site investigation and laboratory analysis, are listed below.

Maximum Known Petroleum Hydrocarbons Levels in Shallow Soil (<3 meters bgs)

Contaminant	Maximum Concentration (mg/kg)
Benzene	1.6
Toluene	0.82
Ethylbenzene	100
Xylenes	140
TPHg	3,600
TPHd	1,200
MTBE	4.1

Implementation Procedures

The responsible parties shall provide a copy of this contingency plan to any new site owner / operator. It is the new owner's responsibility to provide a copy of this contingency plan to all employees and contractors whose normal work and duties may reasonably be expected to lead to contact with petroleum hydrocarbon contaminated soil below ground surface at the site. Contractors shall provide a copy of this plan to each employee working on the site property whose normal work may put them in contact with petroleum hydrocarbon contaminated soil.

Site Workers

Care should be taken to avoid excessive exposure through dermal contact or inhalation during minor below ground surface work and repairs. Major below ground surface work in site areas indicated should be undertaken by personnel or contractors who have completed the standard Occupational Safety and Health Administration (OSHA) 40 hour hazardous materials (HAZWOPER) training course (CFR 1910.120), and if necessary, the 8 hour "refresher" training update within the last year.

Contractors

Any and all contractor personnel whose below grade work on the site may be reasonably expected to expose any of the remaining petroleum hydrocarbon contaminated soil shall prepare a site specific health and safety plan for the work to be conducted. This plan shall be incorporated into any existing site health and safety plans so prepared.

All contractor personnel whose normal work duties may reasonably expose them to any petroleum contaminated soil remaining on site for extended periods shall possess documentation of completion of the standard OSHA 40 hour hazardous materials (HAZWOPER) training course (CFR 1910.120), and if necessary, the 8 hour "refresher" training update within the last year.

Contractor personnel whose work may be reasonably expected to place them in contact with petroleum hydrocarbon contaminated soil shall have respirators, fitted with organic vapor cartridges, close at hand on site or in their immediate possession, at all times during the conduct of the work. All contractor personnel working in described conditions shall also possess documentation of a respirator "fit test" and shall be medically certified to wear a respirator while working.

The contractor's supervisor or the site safety officer shall conduct and document a tailgate site safety meeting prior to the beginning of work and at least every ten working days thereafter for the duration of the project. All employees attending site safety meetings shall sign the meeting record as documentation of their attendance.

Safety discussions will include the Code of Safe Work practices, air quality hazards related to petroleum contamination, specific site safety hazards, trenching and excavation hazards and general safety guidelines as needed. Underground Service Alert shall be notified at least 48 hours in advance of any major subsurface or excavation work. The HCDEH shall be notified prior to any anticipated work in the identified areas of contamination.

In the event of emergency repairs involving said contaminated areas, such that delay would cause immediate danger to life, health, property, structures or the environment, the HCDEH and other affected agencies should be notified as soon as reasonably possible as to the nature of the emergency and steps towards resolution.

Site Monitoring and Personal Protective Equipment

Site Workers

If, during the course of normal minor repairs or other work in areas determined to be potentially contaminated, a worker detects hydrocarbon odors (i.e. a smell of diesel oil or gasoline) work should cease until such time that the site can be monitored by qualified personnel (contractors engineers, geologists, or environmental health specialists) who have completed the required OSHA training outlined above and have equipment for monitoring air quality.

While performing any work below ground surface in contaminated areas care should be taken to minimize dermal contact through the use of hydrocarbon resistant gloves as well as clothing specified in a "Level D" work environment. If dermal contact occurs the affected area should be washed with soap and water. Hands should be washed following work in any contaminated area.

Contractors

When petroleum contaminated soil is excavated, or otherwise exposed to the atmosphere during work performed below grade on site in areas of soil contamination, routine air quality monitoring should be conducted by qualified personnel using appropriate gas detection and monitoring equipment. A first aid kit as well as a 10-pound fire extinguisher shall be on site with the location known to all project personnel. The standard OSHA poster of emergency telephone numbers shall be posted in full view.

Respirators shall be donned when air quality monitoring in the area of activity indicates the concentration of benzene exceeds 1 ppm or total petroleum hydrocarbons exceeds 100 ppm.

Personal Protection

Site Workers

Except as indicated, normal work garments are acceptable. Nitrile or other hydrocarbon resistant gloves shall be required when contact with petroleum contaminated soil is possible.

Contractors

Except as indicated, modified "Level D" personal protection is acceptable, including: normal work garments, ankle-high steel-toe rubber boots, hard hat and safety glasses. Nitrile or other hydrocarbon resistant gloves shall be required when contact with petroleum contaminated soil is possible.

As noted above, all contractor field personnel working within the petroleum contaminated area shall possess a National Institute for Occupational Safety and Health (NIOSH) approved air purifying half-face respirator fitted with an approved organic vapor cartridge (Wilson R-21 or equivalent). Respirators shall be maintained, inspected stored and cleaned in accordance with standard procedures. All personnel shall be trained in the proper use of the respirator and possess documentation of a positive fit test.

Waste Management

In the event that petroleum contaminated soil is made accessible during future subsurface or excavation work, contaminated soil shall be excavated under the direction of qualified personnel to the extent possible. Quantities of soil less than two cubic yards will be contained within secured Department of Transportation (DOT) approved 55-gallon drums for proper disposal. Larger quantities of petroleum contaminated soil will be stockpiled on site or, with HCDEH approval, hauled off site for immediate disposal.

If soil is stockpiled on site it shall be underlain and covered with 6 mil plastic and enclosed with approved fencing with a 6 foot minimum height to limit public exposure until it can be characterized and disposed of per HCDEH approval.

If petroleum contaminated soil is to be disposed of off-site it shall be done with prior HCDEH notification and approval to qualified waste sites by a licensed hauler. Copies of manifests and weigh tickets shall be provided to the HCDEH.

Certification

This report was prepared under the supervision of a California Professional Geologist at Blue Rock. All statements, conclusions, and recommendations are based upon published results from past consultants, field observations by Blue Rock, and analyses performed by a state-certified laboratory as they relate to the time, location, and depth of points sampled by Blue Rock. Interpretation of data, including spatial distribution and temporal trends, are based on commonly used geologic and scientific principles. It is possible that interpretations, conclusions, and recommendations presented in this report may change, as additional data become available and/or regulations change.

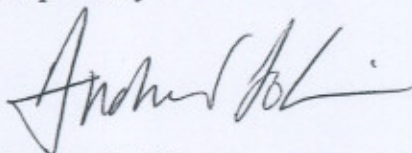
Information and interpretation presented herein are for the sole use of the client and regulating agency. The information and interpretation contained in this document should not be relied upon by a third party.

The service performed by Blue Rock has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

If you have any questions regarding this project, please contact us at (707) 441-1934.

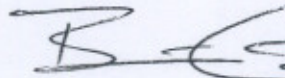
Sincerely,
Blue Rock Environmental, Inc.

Prepared by:

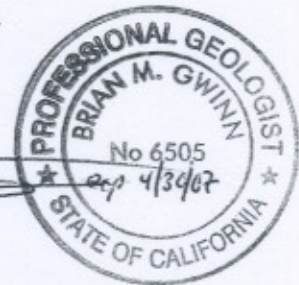


Andrew LoCicero
Project Scientist

Reviewed by:



Brian Gwinn, PG
Principal Geologist



Attachments:

Table 1	Soil Analytical Data
Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Sorbed-Phase Hydrocarbons Remaining in Shallow Soil (<3 m bgs)

Distribution:

Beverly Alto
7803 Myrtle Avenue
Eureka, CA 95503

Jerry Avila
7769 Myrtle Avenue
Eureka, CA 95503

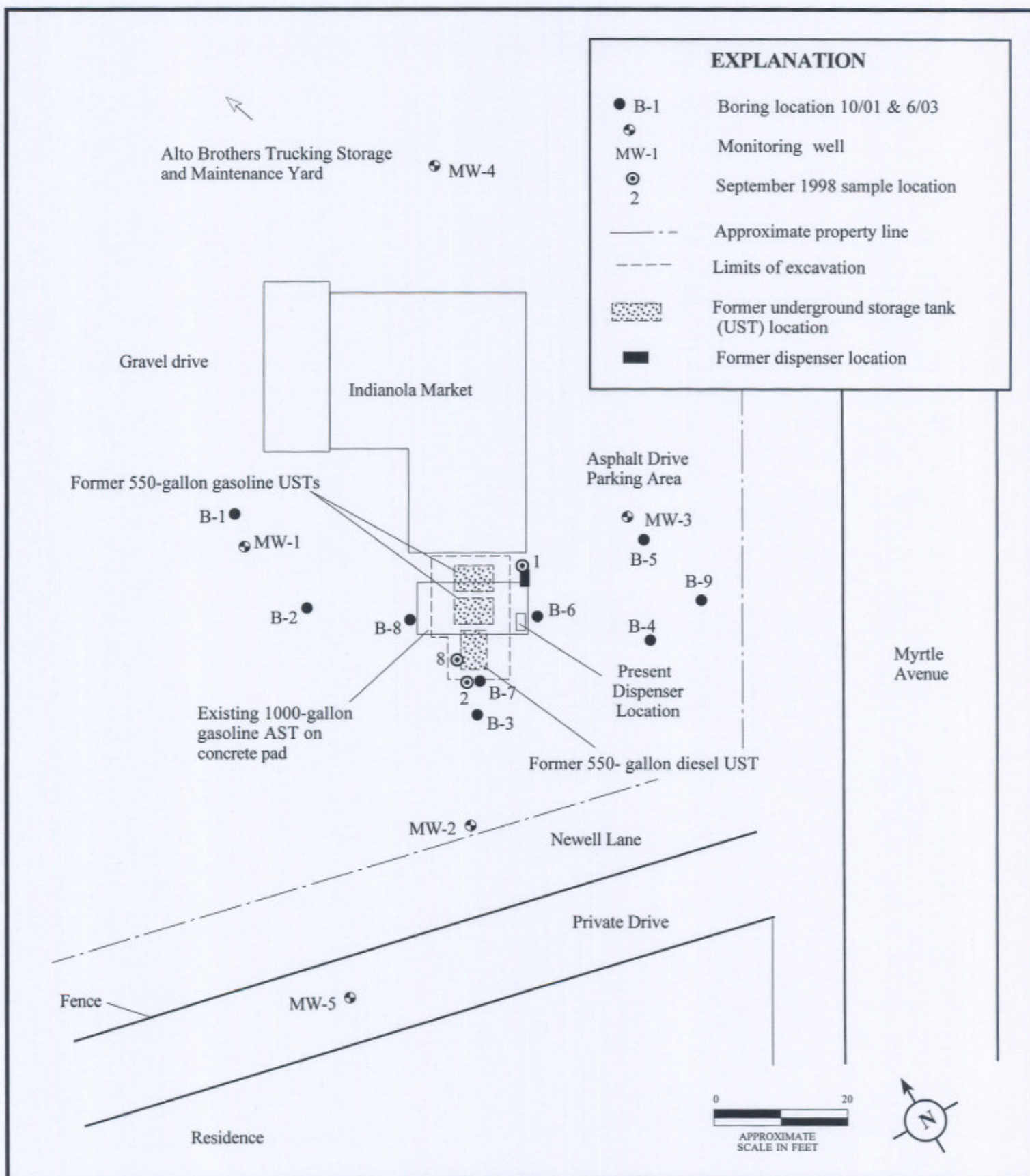
Table 1
SOIL ANALYTICAL DATA
Indianola Market
7769 Myrtle Avenue
Eureka, California
Project No. NC-018

Sample ID	Sample Depth (feet bgs)	Sample Date	TPHg (mg/kg)	TPHd (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	DIPE (mg/kg)	TAME (mg/kg)	ETBE (mg/kg)	TBA (mg/kg)	Methanol (mg/kg)	Ethanol (mg/kg)	Total Lead (µg/g)
#1	--	9/29/98	3,600	--	1.6	0.82	100	140	4.1	<0.02	0.15	<0.02	0.20	--	--	--
#2	--	9/29/98	880	--	0.50	0.58	2.0	8.4	4.0	<0.02	0.47	<0.02	0.59	--	--	--
B-1	5	10/1/01	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01	2.9
B-1	10	10/1/01	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01	4.1
B-2	4	10/1/01	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.2	<0.02	3.4
B-2	8	10/1/01	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.2	<0.02	2.8
B-3	4	10/2/01	4	2.2	<0.005	<0.005	<0.005	<0.005	0.38	<0.005	<0.005	<0.005	0.018	<0.2	<0.02	6.3
B-3	7	10/2/01	<1	<1	<0.005	<0.005	<0.005	<0.005	0.25	<0.005	<0.005	<0.005	0.14	<1	<0.05	5
B-4	4	10/2/01	9.4	49	<0.005	<0.005	<0.005	<0.01	0.082	<0.005	<0.005	<0.005	0.043	<1	<0.05	3.1
B-4	7	10/2/01	<1	<1	<0.005	<0.005	<0.005	<0.005	0.035	<0.005	<0.005	<0.005	0.0081	<0.2	<0.01	4.3
B-5	4	10/2/01	<1	<1	<0.005	<0.005	<0.005	<0.005	0.0074	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01	5.1
B-5	7	10/2/01	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01	2.7
MW-1	5	11/7/01	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	5.7
MW-1	10	11/7/01	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	6.7
MW-1	15	11/7/01	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	5.9
MW-1	20	11/7/01	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	5.0
MW-2	10	11/7/01	<1	<1	<0.005	<0.005	<0.005	<0.005	0.058	<0.005	<0.005	<0.005	0.015	--	--	4.8
MW-2	15	11/7/01	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	6.2
MW-2	20	11/7/01	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	4.4
MW-3	5	11/7/01	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	3.8
MW-3	10	11/7/01	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	3.6
MW-3	15	11/7/01	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	3.7
MW-4	5	10/10/02	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--
MW-4	10	10/10/02	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--
MW-4	15	10/10/02	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--
MW-4	20	10/10/02	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--
MW-5	5	10/10/02	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--
MW-5	10	10/10/02	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--
MW-5	15	10/10/02	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--
MW-5	20	10/10/02	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--

Table 1
SOIL ANALYTICAL DATA
Indianola Market
7769 Myrtle Avenue
Eureka, California
Project No. NC-018

Sample ID	Sample Depth (feet bgs)	Sample Date	TPH _g (mg/kg)	TPH _d (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	DIPE (mg/kg)	TAME (mg/kg)	ETBE (mg/kg)	TBA (mg/kg)	Methanol (mg/kg)	Ethanol (mg/kg)	Total Lead (µg/g)
B-6	2	6/11/03	170	1200	0.044	<0.025	1.6	0.11	0.046	<0.025	<0.025	<0.025	<0.25	--	--	--
B-6	4	6/11/03	100	86	0.083	<0.025	1.3	1.1	0.79	<0.025	<0.025	<0.025	<0.25	--	--	--
B-7	5	6/11/03	920	160	0.063	<0.05	4.0	5.2	0.14	<0.05	<0.05	<0.05	<0.25	--	--	--
B-7	8	6/11/03	<1	<1	<0.005	<0.005	<0.005	<0.005	0.91	<0.005	<0.005	<0.005	<0.005	--	--	--
B-7	10	6/11/03	100	7.1	<0.025	<0.025	0.25	0.42	0.29	<0.025	<0.025	<0.025	<0.25	--	--	--
B-8	2	6/11/03	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--
B-8	4	6/11/03	<1	4.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--
B-8	5	6/11/03	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--
B-9	10	6/11/03	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--

Notes:
mg/kg = milligrams per kilogram
TPH_d: Total Petroleum Hydrocarbons as Diesel by Method 3550.901.5M
TPH_g: Total Petroleum Hydrocarbons as Gasoline by Method 5010.8260B
Benzene: by Method 8260B
Toluene: by Method 8260B
Ethylbenzene: by Method 8260B
Xylenes: by Method 8260B
DIPE: Di-Isopropyl Ether by Method 8260B
TAME: Tertiary Amyl Methyl Ether by Method 8260B
ETBE: Ethyl Tertiary Butyl Ether by Method 8260B
TBA: Tertiary Butyl Alcohol by Method 8260B
Methanol: by Method 8260B
Ethanol: by Method 8260B
Total Lead: by EPA Method 6010



SITE PLAN
 Indianola Market
 7769 Myrtle Ave.
 Eureka, California



BLUE ROCK
 ENVIRONMENTAL, INC.

Project No.
 NC-18

Report Date
 2/06

Figure
 2

EXPLANATION

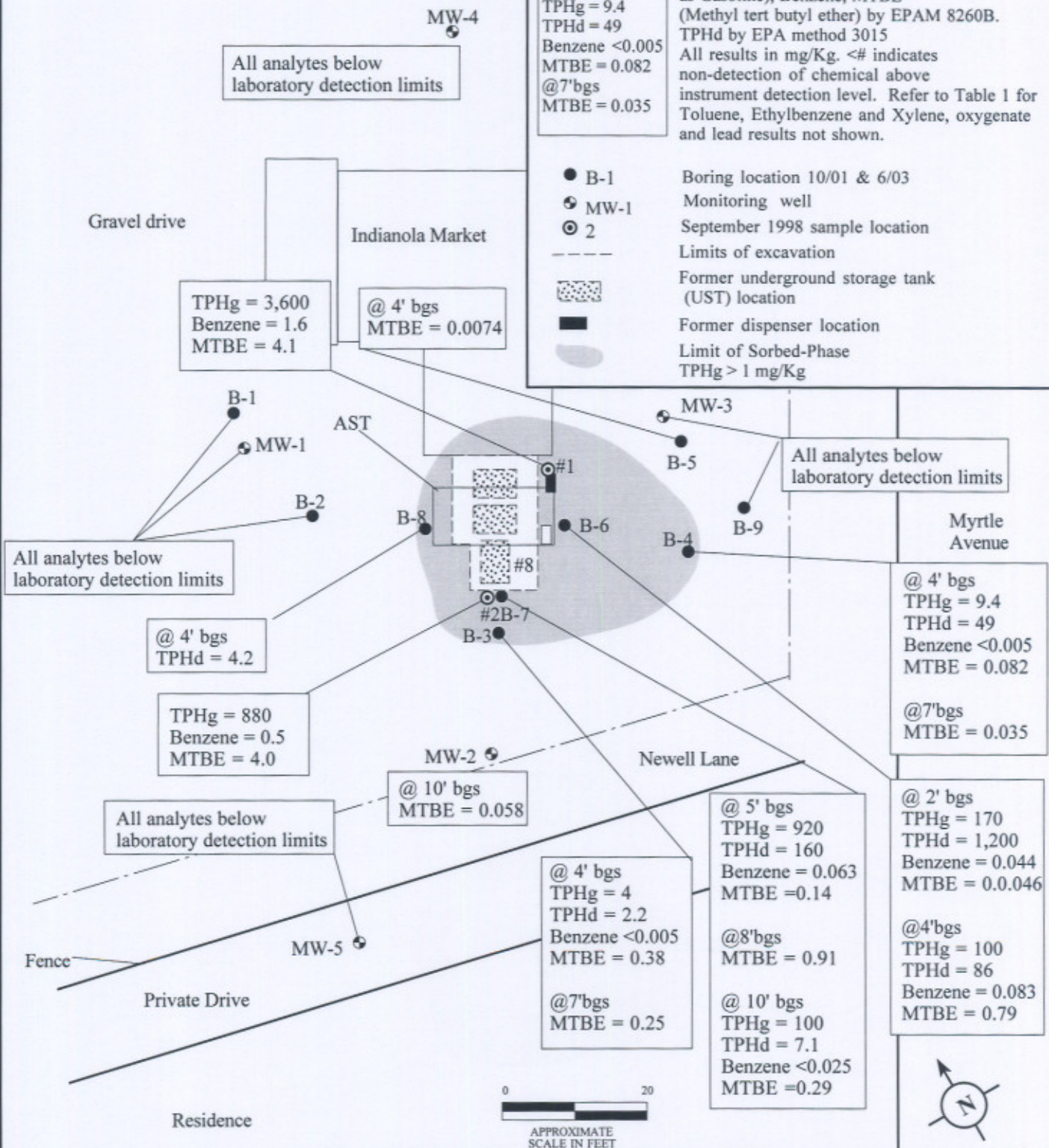
Soil Analytical Results.

TPHg (Total Petroleum Hydrocarbons as Gasoline), Benzene, MTBE (Methyl tert butyl ether) by EPAM 8260B. TPHd by EPA method 3015

All results in mg/Kg. <# indicates non-detection of chemical above instrument detection level. Refer to Table 1 for Toluene, Ethylbenzene and Xylene, oxygenate and lead results not shown.

@ 4' bgs
TPHg = 9.4
TPHd = 49
Benzene <0.005
MTBE = 0.082
@ 7' bgs
MTBE = 0.035

- B-1 Boring location 10/01 & 6/03
- ⊙ MW-1 Monitoring well
- ⊙ 2 September 1998 sample location
- Limits of excavation
- ▨ Former underground storage tank (UST) location
- Former dispenser location
- Limit of Sorbed-Phase TPHg > 1 mg/Kg



Sorbed-Phase Hydrocarbons Remaining in Shallow Soil (<3 m bgs)

Indianola Market
7769 Myrtle Avenue
Eureka, California



BLUE ROCK
ENVIRONMENTAL, INC.

Project No.
NC-18

Report Date
2/06

Figure
3